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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/626,496	07/24/2003	Damian G. Bonicatto	11838.0058-US-01	1984
23552 7590 07/17/2009 MERCHANT & GOULD PC P.O. BOX 2903 MINNEAPOLIS, MN 55402-0903				
EXAMINER				
WONG, XAVIER S				
ART UNIT		PAPER NUMBER		
2416				
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/626,496

Applicant(s)

BONICATTO ET AL.

Examiner

Xavier Szewai Wong

Art Unit

2416

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30th June 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☒ Claim(s) 6 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SE/US)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 30th June 2009 has been entered.

Claim Objections

Claim 1 is objected to because of the following informalities: line 4, delete "I.D." and insert e.g. -- identifier (I.D.) --. Appropriate correction is required.

Specification

The abstract of the disclosure is objected to because acronym "I.D." should be spelled out such as: delete "I.D." and insert e.g. -- identifier (I.D.) -- at its *first occurrence*. Correction is required. See MPEP § 608.01(b).

The specification of the disclosure on pg. 2 line 21 is objected to because acronym "PLC" should be spelled out such as: delete "PLC" and insert e.g. -- power line communication (PLC) -- at its *first occurrence*. Correction is required. See MPEP § 608.01(b).

The specification of the disclosure on pg. 4 line 8 is objected to because acronym "I.D." should be spelled out such as: delete "I.D." and insert e.g. -- identifier (I.D.) -- at its *first occurrence*. Correction is required. See MPEP § 608.01(b).

Allowable Subject Matter

Claim 6: Ouellette, in combination with Elliott, teach the substation transceiver and substation circuit are located at a first power distribution substation. Ouellette, in combination with Elliott (*and prior art of record*), do not very particularly teach the system (structurally) further comprising:

“a second substation transceiver and a second substation circuit, the second substation transceiver being in electrical communication with the second substation circuit, the second substation transceiver and the second substation circuit being located at a second power distributed substation; and

a control server in data communication with the substation circuit at the first power distribution substation and the substation circuit at the second power distribution substation;

wherein, upon a loss of communication between the endpoint and the substation transceiver at the first power distribution substation, the control server instructs the substation circuit at the second substation to map the unique ID identifying the endpoint to a base frequency within a bandwidth and to control the substation transceiver at the second power distribution system, the data packet including the unique ID for the endpoint and the base frequency, and to assign a status to the base frequency upon receiving a signal from the endpoint, the status indicating that the substation transceiver located at the second power distribution substation is receiving signals in the bandwidth corresponding to the base frequency.”

Thus, claim 6 is deemed to be non-obvious over the prior art of record.

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ouellette (US 5495239) in view of Elliott et al (US 2003/0096629 A1, Elliott).

Claim 1: Ouellette teaches a system for bi-directional communication with a power distribution system (col. 7 ln. 61-64; abstract; fig. 1), the system configured to find an endpoint (fig. 1: metering devices 16), the endpoint having an endpoint transceiver in electrical communication with a power distribution line (fig. 1: power distribution lines 17), the power distribution line being within the power distribution system (fig. 1), the endpoint being identified by a unique ID (col. 9 ln. 1-5), the system comprising:

a substation transceiver electrically coupled to a power distribution line within the power distribution system (col. 4 ln. 32-37; fig. 2 items 12, 17 & 22);

a substation circuit in electrical communication with the substation transceiver (fig. 2: microprocessor 22).

Ouellette does not very particularly mention the substation circuit programmed to:

“map the unique ID for the endpoint to a base frequency within a bandwidth and to control the substation receiver to transmit a find endpoint data packet onto the power distribution network, the find endpoint data packet including the unique ID and the base frequency; and

assigning a status to the base frequency upon receiving a signal from the endpoint, the status indicating that the substation transceiver is receiving a signal in the frequency bandwidth.”

Elliott teaches map the unique ID for the endpoint to a base frequency within a bandwidth and to control the substation receiver to transmit a find endpoint data packet onto the power distribution network, the find endpoint data packet including the unique ID and the base frequency ([0034]: map unique identifiers associated with each RF power monitoring device 105a-105n to a geographic location of each device 105a-105n); and

assigning a status to the base frequency upon receiving a signal from the endpoint, the status indicating that the substation transceiver is receiving a signal in the frequency bandwidth ([0035] lines 6-15: a time stamp 1010 specifies a time that an RF power level was measured at RF power monitoring device 105a-110n; RF power level 1015 indicates the RF power level measured at the RF power-monitoring device 105a-105n associated with IP address 1005 at the time specified by time stamp 1010).

It would have been obvious to one of ordinary skill in the art when the invention was created to implement the steps of Elliott to the substation circuit of Ouellette to efficiently measure radio frequency (RF) levels of each device connected to it (Elliott: abstract).

Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ouellette (US 5495239) in view of Elliott et al (US 2003/0096629 A1, Elliott), applied to claim 1, and in further view of Ardalan et al (US 6900737 B1, Ardalan).

Claim 2: Ouellette, in combination with Elliott, teach the substation circuit. Ouellette, in combination with Elliott, do not very particularly mention it is further programmed to:

“determining whether the substation transceiver stopped receiving a signal within the bandwidth corresponding to the base frequency assigned to the endpoint transceiver; and

control the substation transceiver to retransmit the find endpoint data packet containing the unique ID of the endpoint and the base frequency assigned to the endpoint transceiver.”

Ardalan disclose a gateway portion for a power meter reading system (as substation) retransmit SMS packets to meters (endpoints) if no responses are received from the meters, and therefore, the gateway sends out SMS (find) packets until a response is received (col. 2 ln. 11-14; col. 5 ln. 61-66; col. 6 ln. 13-17). It would have been obvious to one of ordinary skill in the art to incorporate the teachings of retransmitting a “find endpoint” packet as taught by Ardalan, in the system of Ouellette, in combination with Elliott, for acknowledgement purpose. The system of Ardalan also disclose the ability to schedule times when the meters will be active and respond to SMS packets (col. 2 ln. 16-17); therefore, it is obvious to recognize the ability to determine whether a substation stops receiving signals from the endpoints as taught by Ardalan, in the system of Ouellette, in combination with Elliott, for avoiding signal collision.

Claims 3 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ouellette (US 5495239) in view of Elliott et al (US 2003/0096629 A1, Elliott), applied to claims 1 and 3, and in further view of Fischer (US 5502726).

Claims 3 and 4: Ouellette, in combination with Elliott, teach the substation circuit. Ouellette, in combination with Elliott, do not specifically mention it is further programmed to control the substation transceiver to repeatedly transmit the find endpoint data packet in a predetermined interval, wherein the predetermined interval is about 1 minute, until the substation the substation transceiver receives a signal from the endpoint identified by the unique ID. Fischer teaches a (transmit/receive) station that retransmits any unacknowledged packets repeatedly in one-minute retry cycles until a session (reply) is successfully established (col. 37 ln. 24-36: CONN_REP...one minute retry cycle). It would have been obvious to one of ordinary skill in the art to incorporate the teachings of a transceiver repeatedly transmit a "find endpoint" packet in a one minute predetermined intervals until the transceiver receives a signal from the endpoint as taught by Fischer, in the system of Ouellette, in combination with Elliott, for acknowledgement purpose.

Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ouellette (US 5495239) in view of Elliott et al (US 2003/0096629 A1, Elliott) and Fischer (US 5502726), applied to claim 3, and in further view of Sipola (US 2004/0105386 A1).

Claim 5: Ouellette, in combination with Elliott and Fischer, teach the substation circuit is further programmed to control the substation transceiver to repeatedly transmit the find endpoint data packet in a predetermined interval, the repeated transmission of

the data packet being interrupted only by a prescheduled transmission of an alternative data packet. Sipola discloses a scheduler that interrupts a current (may be a repeated flow) data packet flow due to another retransmission data packet flow with higher priority (therefore, prescheduled) described in paragraph 0056. It would have been obvious to one of ordinary skill in the art to incorporate the teachings of a repeated transmission of packet being interrupted only by a prescheduled transmission of an alternative packet as taught by Sipola, in the system of Ouellette, in combination with Elliott and Fischer, for improving multi-flow transmission over a single resource.

Response to Arguments

Applicant arguments with respect to claim 1 have been considered but are moot in view of the new ground(s) of rejection. See **Elliott** et al.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

1. Youssefzadeh et al, US 6198921 B1: providing telephone service through satellite to rural subscribers wherein the satellite frequency pair and destination ID of the subscriber is to be found and then data be transmitted to the subscriber

2. Redi et al, US 2002/0071395 A1: within a network of system, user equipment units continually acquire new user link beams as the atmospheric platform moves and transmit packets that associate their unique addresses with current beam frequencies; these data are used in the gateway to update a packet switch's routing table that maintains the database of destination addresses and downlink frequencies; the user

links and trunkline downlinks incorporate RF beacon subsystems that transmit signals to facilitate data beam acquisition by the respective ground terminals

3. Colella et al, US 6781968 B1: wireless communication system using an atmospheric platform having a wideband trunk line

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Xavier Wong whose telephone number is 571.270.1780. The examiner can normally be reached on Monday through Friday 8:30 am - 6:00 pm (EST).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seema Rao can be reached on 571.272.3174. The fax phone number for the organization where this application or proceeding is assigned is 571.273.8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866.217.9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800.786.9199 (IN USA OR CANADA) or 571.272.1000.

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13th July 2009

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